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TOSHIO ISOZAKI, ET AL.

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF

: EXAMINER: DARCY D. LACLAIR

SERIAL NO: 10/589,639

FILED: AUGUST 16, 2006 : GROUP ART UNIT: 4171

FOR: POLYCARBONATE RESIN

COMPOSITION AND MOLDED ARTICLE

THEREOF

DECLARATION UNDER 37 C.F.R. §1.132

COMMISSIONER FOR PATENTS ALEXANDRIA, VIRGINIA 22313

SIR:

I, Kenichi MITSUHASHI, hereby declare:

- I graduated from the master Course in polymer chemistry of Tokyo Institute of Technology in 1990.
- 2. I have been employed by the Idemitsu Kosan Co., Ltd. (the "Idemitsu"), the assignee of the above-identified application from 1990 to the present.
- 3. From 1990 to the present, I have worked as a researcher for Idemitsu in the area of polymer chemistry, especially polycarbonate.
- 4. I carried out the following experimentation. Polycarbonate resins falling outside the scope of claim 1 of the above-identified application and their resin compositions were prepared and evaluated as described in paragraphs [0038] to [0039] and [0041] to [0043] of the above-identified application. The amounts of the respective components and

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the evaluation results are shown in TABLE A. Examples 1 and 4, which are described in the above-identified application, are included for convenient comparison.

As shown in TABLE A, polycarbonate resin compositions including 5. polycarbonate resin falling within the scope of claim 1 of the above-identified application yield molded articles with excellent flame retardance and impact resistance relative to polycarbonate resin compositions that include polycarbonate resin falling outside the scope of claim 1 of the above-identified application. This difference in flame retardance and impact resistance is unexpected, and constitutes objective evidence of the improvements of the polycarbonate resin composition of claim 1 over known resin compositions, as in Laughner, Paul et al. and Laughner et al.

Table A

				Table A			
Components admixed (parts by mass)		Example 1	Example 4	Comparative example 11	Comparative example 12	Comparative example 13	Comparative example 14
PC-1		15		15		15	
(A)	PC-2		30		30		30
	PC-3	70	50	· ··			
	PC-4*	,,,,	==	70	50		
	PC-5**					70	50
(B)	ABS-1		20		20		20
	ABS-2	15		15		15	
(C)	Talc		10		10	L	10
(E)	Metal salt-1	0.1		0.1		0.1	
<u>(G)</u>	PTFE	0.5	0.5	0.3	0.3	0.3	0.3
Evaluation	SFL (260°C, 2 mm thick) (cm)	41	42	40	41	40	39
	Izod impact strength (kJ/cm²)	70	45	75	50	20	15
	HDT (load: 1.83 MPa) (°C)	118	118	118	117	118	118
	Flexural strength (MPa)	60	92	60	91	62	92
	Flexural modulus (MPa)	2200	3450	2200	3400	2250	3500
	Flame retardance (UL94, 1.5 mm thick)	V-0	V-0	V-l	V-1	V-0	V-0
	LOI	40	41	32	33	41	41

^{*:} PC-4: polycarbonate-biphenol copolymer having a viscosity average molecular weight of 17500 and a biphenol content of 3.0 mol%, obtained in the same manner of Preparation Example 1;

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- * *: PC-5: polycarbonate-biphenol copolymer having a viscosity average molecular weight of 17500 and a biphenol content of 70.0 mol%, obtained in the same manner of Preparation Example 1;
- All statements made herein of my own knowledge are true, and all statements 6. made on information and belief are believed to be true; these statements were made with the knowledge that willful false statements are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing therefrom.

November. 4.2005